Audit of Forest Planning and Practices

Small Business Forest Enterprise Program
Sunshine Coast Forest District

Forest Practices Board

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Report from the Board

A. Report from the Board

This is the Board's report on a compliance audit[1] of the Small Business Forest Enterprise Program (SBFEP)[2] in the Sunshine Coast Forest District.

Before completing this report, the Board considered written representations from the Sunshine Coast Forest District and the Coastal Fire Centre, as required under section 182 of the *Forest Practices Code of British Columbia Act* (the Act). The Board also considered the Report from the Auditor along with supporting audit evidence. Based on its analysis of this information, the Board affirms the audit opinion under section 5.0 of the Report from the Auditor, including confirmation that fire tools must be on-site for the entire fire season as required by the *Forest Fire Prevention and Suppression Regulation*.

Conclusions

The SBFEP's operational planning; harvesting; road construction, maintenance and deactivation practices; silviculture and fire protection activities generally complied with Forest Practices Code requirements. The only significant non-compliance reported by the auditor was in the area of fire planning and preparedness and pertained to deficiencies in fire preparedness plans and on-site availability of fire tools.

It is the Board's opinion that any industrial forestry operator should be prepared and trained to handle initial attack on an operational fire, as required by the *Forest Practices Code of British Columbia Act* and related regulations (the Code). The fire tool provisions of the Code are not onerous requirements and, given that fire danger rating can change rapidly during the fire season, it is important to maintain adequate tools on-site. Regardless of the fire danger rating, the Code is clear: fire tools are mandatory from April 1 to October 31.

With specific reference to fire preparedness planning, timber sale licensees must prepare and submit plans in accordance with sections 27 and 28 of the *Forest Fire Prevention and Suppression Regulation*. Over the last decade, provincial fire protection responsibilities have been centralized and resourced through regional bases, such as the Coastal Fire Centre. As a result, timber sale licensees' responsibilities for preparing and submitting fire preparedness plans should be re-examined. This examination should include a review of the role linkages between the timber sale licensees, the SBFEP administrators, and the Coastal Fire Centre in order to establish an efficient and comprehensive plan for fire preparedness. This review must also assess whether current legislation is relevant in the context of a centralized fire protection program.

Until such time as this review is completed, the district is responsible for ensuring that timber sale licensees adequately perform their current obligations under the Code with respect to fire tools and fire preparedness plans.

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[1] Part C of this document provides background information on the Board's audit program and the process followed by the Board in preparing its report.

[2] The report from the auditor (Part B of this document) provides specifics about the operating areas of the Sunshine Coast SBFEP and the forest planning and field activities of the SBFEP that were the subject of this audit and the audit findings.

Since the completion of the audit, in a revised memorandum of understanding dated May 2000, the Ministry of Forests has taken steps to clarify the roles for the district and Coastal Fire Centre with respect to protection activities. However, it is the Board's opinion that there continues to be a lack of clarity between the current legislative requirements, the memorandum of understanding, and actual practice on the ground.

Recommendations

As provided by section 185 of the Act, the Board makes the following recommendations:

1. The Board recommends that the Sunshine Coast Forest District review its procedures for fire tool inspections to ensure that timber sale licensees have the necessary tools on-site during the entire fire season.
2. The Board recommends that, to ensure full compliance with the appropriate legislation, the Ministry of Forests:

    - review the conduct of fire preparedness planning within the SBFEP;
    - determine the content requirements for plans;
    - implement appropriate roles and procedures for completing plans; and
    - amend legislation if necessary.

In accordance with section 186 of the Act, the Board requests that the Sunshine Coast Forest District and the Deputy Minister of Forests advise the Board by January 31, 2001 of the actions taken to address these recommendations.

Higher Level Plans

The Board commends the Sunshine Coast Forest District for its approach to managing several non-timber resources. The district has developed resource management plans applicable to all licensees operating within a geographic area; for example, interim measures to protect marbled murrelet nesting habitat within the Bunster Hills area, and the Haslam Lang integrated watershed management plan. These pro-active measures help to bridge the gap in the Code with respect to protection of non-timber resources. However, until higher level plans and landscape unit objectives are legally established, there is no legal obligation under the Code to adequately protect other resources across the district. The government should formally designate these landscape level initiatives in the Sunshine Coast Forest District as soon as it is feasible.

Recommendation

As provided by section 185 of the Act, the Board recommends that the government expedite the adoption of higher level plans, including landscape unit objectives, within the Sunshine Coast Forest District.

This recommendation is consistent with previous advice provided to the government.

W.N. (Bill) Cafferata
Chair
October 12, 2000

Report from the Auditor

B. Report from the Auditor

1.0 Introduction

As part of the Forest Practices Board's 1999 compliance audit program, the Ministry of Forest's Small Business Forest Enterprise Program (SBFEP) in the Sunshine Coast Forest District was selected for audit from the population of Small Business Forest Enterprise Programs within the province. The Sunshine Coast SBFEP was selected randomly and not on the basis of location or level of performance.

The SBFEP is a program within which the Ministry of Forests awards timber sale licences to small business licensees. The Ministry of Forests and the individual licensees each have separate but inter-related roles and responsibilities within the program:

- The district manager is responsible for the overall management and performance of the SBFEP. This includes preparing and giving effect to forest development plans[1] and silviculture prescriptions[2]; some road construction, maintenance and deactivation; as well as meeting silviculture obligations. The district manager can also choose to prepare and give effect to logging plans[3] that small business licensees must follow.

- The small business licensees who have been awarded timber sale licences (TSL holders) through the SBFEP have a number of legal responsibilities, as reflected in their timber sale licence and other permits (road permits and road use permits). These responsibilities may include preparing and obtaining approval of logging plans; some road construction, maintenance and deactivation; and ensuring that all operations, including harvesting, are carried out in compliance with the *Forest Practices Code of British Columbia Act* and related regulations (the Code).

The district responsibilities and individual TSL holder responsibilities and performance are closely linked. The planning done by the district can impact directly on the TSL holders' ability to adequately carry out their responsibilities. The quality of a licence holder's timber harvesting activities can affect a district's ability to adequately carry out their work, such as silviculture obligations, after logging is completed.

The Sunshine Coast SBFEP operates within the Sunshine Coast Forest District. The district covers an area from Sechelt in the south to Desolation Sound in the north. The major towns in the district are Sechelt and Powell River. (Refer to attached map).

The Sunshine Coast SBFEP has an allowable annual cut of 183,824 cubic meters with operations scattered throughout the district, both in the Sunshine Coast Timber Supply Area and in three tree farm licences.

2.0 Audit Scope

The audit examined the activities of the Sunshine Coast SBFEP in the areas of operational planning (including forest development plans, silviculture prescriptions, and logging plans); timber harvesting; road construction, maintenance and deactivation; silviculture and fire protection. These activities were assessed for compliance with the *Forest Practices Code of British Columbia Act* and related regulations (the Code).

All activities, planning and obligations for the period September 15, 1998 to September 22, 1999 were included in the scope of the audit.

The Sunshine Coast SBFEP activities carried out during the audit period were:

- harvesting on 45 cutblocks
- construction of 14 sections of road totaling 43.7 kilometres
- maintenance of approximately 163 kilometres of road, involving activities such as surfacing and the cleaning of culverts and ditches
- semi-permanent or permanent deactivation of approximately 16 kilometres of road
- construction of three bridges and maintenance of 70 bridges
- planting of 15 cutblocks, brushing of nine cutblocks, and pruning of four cutblocks
- site preparation for planting of four cutblocks
- free growing obligations on 12 cutblocks and regeneration obligations on 19 cutblocks
- protection activities including fire preparedness planning, fuel management, and hazard abatement

In addition, 36 silviculture prescriptions and logging plans were approved during the period, nine of which supported harvesting that occurred during the period. The activities carried out by the Sunshine Coast SBFEP during the audit period were approved in its 1998-2002 Forest Development Plan.

Section 3 describes the results of the audit. The Board's *Compliance Audit Reference Manual, Version 4.0, May 1999* sets out the standards and procedures that were used for the audit.

3.0 Audit Findings

Planning and practices examined

The audit work on selected roads and cutblocks included assessments from the air, using helicopters, and ground-based procedures. The audit examined the following plans and practices:

- harvesting of 18 cutblocks and their related operational plans
- construction of five sections of road totaling 26 kilometres
- maintenance of approximately 88 kilometres of road
- semi-permanent or permanent deactivation of eight sections totaling approximately 15 kilometres
- construction of three bridges and maintenance of five bridges
- planting of four cutblocks, brushing of two cutblocks, and pruning of two cutblocks
- site preparation for planting of three cutblocks
- free growing obligations on eight cutblocks and regeneration delay obligations on three cutblocks
- protection activities including fire preparedness planning, fuel management, and hazard abatement

The audit also examined the SBFEP's 1998–2002 Forest Development Plan and five silviculture prescriptions and logging plans approved during the audit period, but not implemented.

Findings

The audit found that, except for fire protection planning and preparedness, the Sunshine Coast SBFEP forest planning and practices complied, in all significant respects, with Code requirements.

Fire Protection

At two of three industrial sites inspected, fire fighting tools and equipment were not sufficient to meet the requirements of the Code. The deficiencies included a lack of water and hand pumps, insufficient numbers of shovels and pulaskis, and a lack of fire extinguishers.

This non-compliance relates primarily to the requirements set out in sections 5 to 15 of the *Forest Fire Prevention and Suppression Regulation*.

Additionally, seven fire preparedness plans examined did not comply with the content requirements of the Code. The missing content requirements included identification of persons

with training qualifications; availability of tools in central caches; location of weather stations; proposed timing and location of industrial activities and specific fire detection and initial fire suppression actions to be taken in the event of a fire.

This non-compliance relates primarily to the requirements set out in sections 27 and 28 of the *Forest Fire Prevention and Suppression Regulation*.

Although fire hazard was low at the time of the audit, there was no indication that all the required equipment would be on-site during times of high fire hazard. Therefore, these deficiencies were determined to be significant non-compliance.

While the Ministry of Forests has responsibility for fire control and ensuring that the *Forest Fire Prevention and Suppression Regulation* is adhered to, not all responsibilities rest with the Sunshine Coast Forest District SBFEP. There is a memorandum of understanding between the Coastal Fire Centre[4] and the Vancouver Forest Region that outlines district and Coastal Fire Centre responsibilities. The Coastal Fire Centre is responsible for ensuring that the required Fire Preparedness Plans are completed, while the SBFEP ensures the small business licencees adhere to the fire tool requirements of the Code.

Notable Practices

Bridge Construction

The Sunshine Coast SBFEP consistently utilized steel and concrete structures when constructing bridges on main access roads and over high value streams, such as fish streams. This practice is noteworthy in that it minimizes environmental risk to the streams crossed, increases safety in areas of high public use, and reduces long-term maintenance costs in areas that will require access long into the future.

Road Rehabilitation

The Sunshine Coast SBFEP consistently rehabilitated in-block access roads, including full re-contouring and planting of the roads. This practice is noteworthy in that it maximizes the productive capacity of the sites and exceeds the minimum requirements of the Code.

4.0 Other Comments

Higher Level Plans and Objectives

Setting landscape level objectives was envisaged under the Forest Practices Code as a key component to provide direction in forest development planning to ensure, among other objectives, adequate consideration of wildlife habitat areas, biological diversity, and old growth.

Although landscape objectives have not been established for the Sunshine Coast Forest District, the district has adopted some measures that provide for the management and protection of certain forest resources. Examples of these include the completion of landscape inventories and approved visual quality objectives, the formal designation of scenic areas and the incorporation of information from draft landscape unit boundaries, biodiversity emphasis, and seral stage

distribution targets into forest development plans. Areas recognized as potential marbled murrelet habitat were deferred from harvest pending the completion of a marbled murrelet strategy.

Other than items that may be addressed by district measures, the lack of landscape level objectives does not allow an assessment of whether all appropriate forest resources are fully identified and addressed. As well, it is not possible to fully assess the level of protection provided to such resources at the site level.

In the absence of landscape level objectives, forest development plans of different licensees within a landscape may not be sufficiently inter-related to provide adequate protection to all forest resources. For example, the protection of certain forest resources, such as wildlife habitat areas, needs to be coordinated between the different forest development plans within a landscape level to ensure they are not adversely affected.

Because of this limitation in the Code, the audit assessed the small business program's compliance based on the Code requirements that were in place and the forest resources identified by the district manager during the operational planning process.

Requirements for Fire Preparedness Plans

Under the Code, there is a requirement for each timber sale licence holder to prepare a Fire Preparedness Plan. These plans are only required if the licence holder is conducting certain activities, such as harvesting and road construction, between April 1 and October 31; the activity occurs over a period of more than 30 days and normally involves more than four persons at all times. This requirement does not appear to meet the intent of the Code.

The intent of Fire Preparedness Plans is to help ensure that licensees have the personnel, training, fire tool and equipment requirements to fight fires that may result from their forest activities; and to help the Ministry of Forests in coordinating fire fighting efforts by providing information regarding the number of persons and equipment availability, and the location of industrial activity.

Fire tool requirements are generally enforced through Part 2 of the *Forest Fire Prevention and Suppression Regulation*, rather than through the Fire Preparedness Plan. Part 2 of the regulation outlines the fire tool requirements for different scales of activity.

Ministry of Forests Fire Centres have indicated that they are generally not using Fire Preparedness Plans from timber sale licence holders to coordinate fire fighting efforts. The Ministry of Forests actually performs the majority of fire preparedness activities, such as maintaining weather stations, ensuring that the TSL holders are aware of danger ratings, and carrying out fire detection activities.

Therefore, the Fire Preparedness Plan requirement for timber sale licences does not meet the intent for having these plans.

5.0 Audit Opinion

In my opinion, except for the fire planning and preparedness described below, the operational planning; harvesting; road construction, maintenance and deactivation; silviculture and fire protection activities carried out by the Sunshine Coast Small Business Forest Enterprise Program from September 15, 1998 to September 22, 1999 were in compliance, in all significant respects, with the requirements of the Code as of September 1999.

Fire Protection

As described in Section 3 of this report, the audit identified deficiencies in fire preparedness plans and in fire fighting tools and equipment located at industrial sites. These findings were determined to be significant due to the risks associated with forest fires, particularly in areas of close proximity to urban centres.

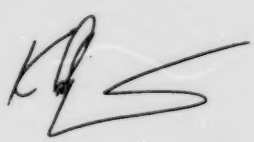
Without further qualifying my opinion, I draw attention to Section 4 of this report which explains the place of higher level plans in the planning regimes anticipated by the Code, and the effect that their absence has on the identification of measures to protect forest resource values.

As government has not yet established landscape level objectives and, as a result, it is not clear if all forest resources have yet been identified, it was not possible to fully assess whether all forest resources are being adequately protected. Because of this limitation on the Code, the audit assessed the Sunshine Coast SBFEP's compliance based on the Code requirements that were in place and the forest resources identified by the district manager during the operational planning process. This situation was not considered to be one of non-compliance by the Sunshine Coast SBFEP.

Section 4 also discusses the role of Fire Preparedness Plans for timber sale licences.

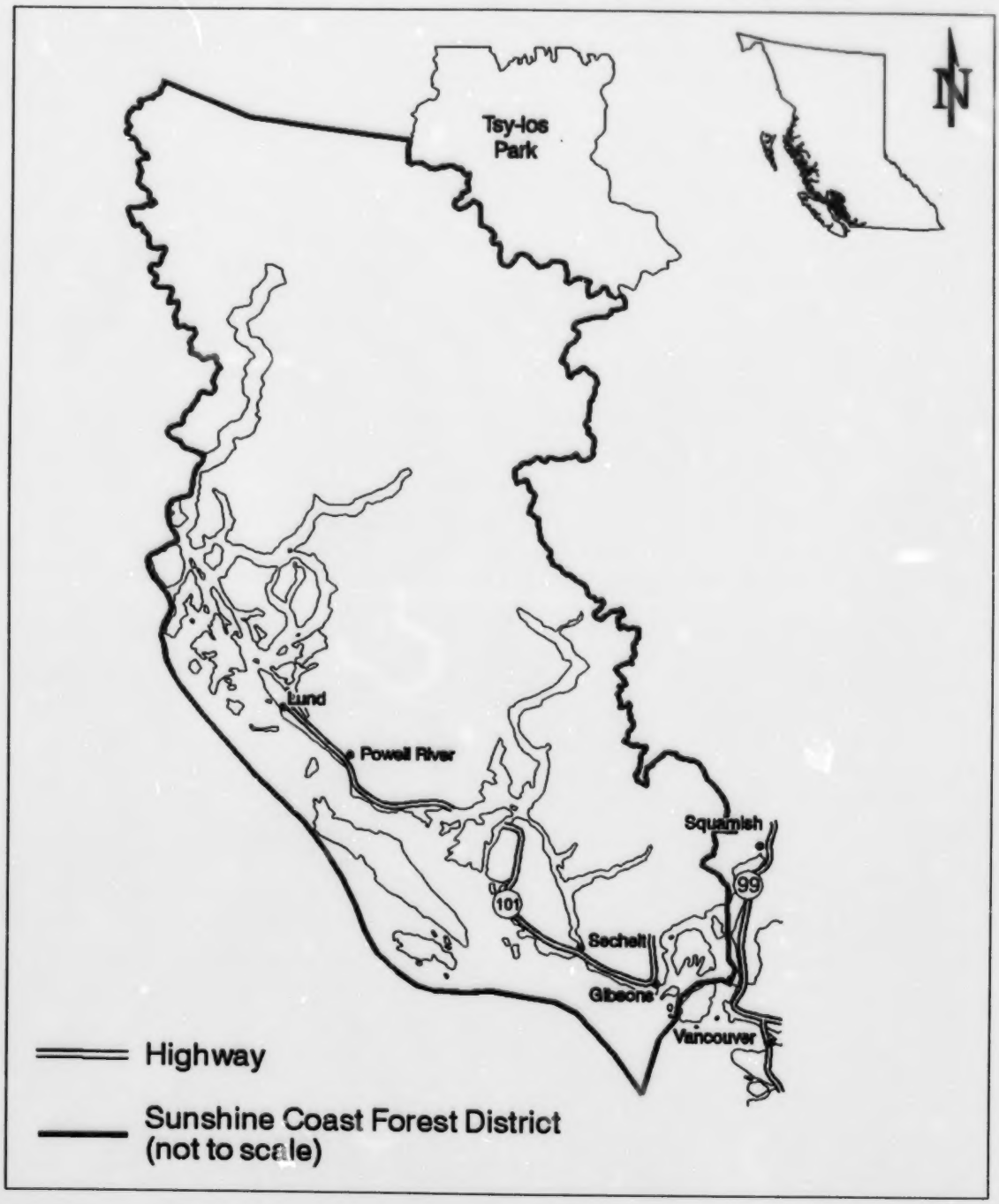
In reference to compliance, the term "in all significant respects" recognizes that there may be minor instances of non-compliance that either may not be detected by the audit, or that are detected but not considered worthy of inclusion in the audit report.

Sections 2 and 3 of this report from the auditor describe the audit work that formed the basis for reaching this qualified opinion. The audit was conducted in accordance with the auditing standards of the Forest Practices Board. Such an audit includes examining sufficient forest planning and practices to support an overall evaluation of compliance with the Code.



Kevin Edquist, R.P.F.
Auditor of Record
Victoria, British Columbia
May 12, 2000

Audit of Sunshine Coast
Small Business Forest Enterprise Program



Endnotes

1. A forest development plan is an operational plan which provides the public and government agencies with information about the location and scheduling of proposed roads and cutblocks for harvesting timber over a period of at least five years. The plan must specify measures that will be carried out to protect forest resources (including water, fisheries, and other forest resources). It must also illustrate and describe how objectives and strategies established in higher level plans, where they have been prepared, will be carried out. Site specific plans are required to be consistent with the forest development plan.

2. A silviculture prescription is a site specific operational plan that describes the forest management objectives for an area to be harvested (a cutblock). The silviculture prescriptions examined in the audit are required to describe the management activities proposed to maintain the inherent productivity of the site, accommodate all resource values including biological diversity, and produce a free growing stand capable of meeting stated management objectives. Silviculture prescriptions must be consistent with forest development plans that encompass the area to which the prescription applies.

3. A logging plan is an operational plan that details how, when, and where timber harvesting and road construction activities will take place in a cutblock, in accordance with the approved silviculture prescription and forest development plan for the area. Information about other forest resource values, plus all current field information for the area, must be clearly shown in the logging plan. The requirement to prepare logging plans was repealed on June 15, 1998, but may be in effect in limited circumstances. Logging plans approved before June 15, 1998 continue to be in effect until timber harvesting is completed.

4. The Protection Program is a division of the British Columbia Forest Service specializing in wildfire suppression and prevention. There is a Provincial Fire Centre based in Victoria, and six fire control centers each responsible for a geographic region. The six geographic regions are the Coastal, Northwest, Prince George, Kamloops South East and Cariboo regions.

Forest Practices Board Compliance Audit Process

C. Forest Practices Board Compliance Audit Process

Background

The Forest Practices Board conducts audits of government's and agreement holder's compliance with the *Forest Practices Code of British Columbia Act* and regulations (the Code). The Board is given the authority to conduct these periodic independent audits by section 176 of the Act. Compliance audits examine forest planning and practices to determine whether or not they meet Code requirements.

The Board undertakes both "limited scope" and "full scope" compliance audits. A limited scope audit involves the examination of selected forest practices (e.g., roads, or timber harvesting, or silviculture) and the related operational planning activities. A full scope audit examines all operational planning activities and forest practices.

The Board determines how many audits it will conduct in a year, and what type of audits (limited or full scope), based on budget and other considerations. The Board audits agreement holders who have forest licences or other tenures under the *Forest Act* or the *Range Act*. The Board also audits government's Small Business Forest Enterprise Program (SBFEP) which is administered by Ministry of Forests district offices. Selection of agreement holders and district SBFEPs for audit is done randomly, using a computer program, to ensure a fair, unbiased selection of auditees.

Audit Standards

Audits by the Forest Practices Board are conducted in accordance with the auditing standards developed by the Board. These standards are consistent with generally accepted auditing standards.

The audits determine compliance with the Code based on criteria derived from the *Forest Practices Code of British Columbia Act* and its related regulations. Audit criteria are established for the evaluation or measurement of each practice required by the Code. The criteria reflect judgments about the level of performance that constitutes compliance with each requirement.

The standards and procedures for compliance audits are described in the Board's *Compliance Audit Reference Manual*.

Audit Process

Conducting the Audit

Once the Board selects an audit and decides on the scope of the audit (limited scope or full scope), the staff and resources required to conduct the audit and the period covered by the audit are determined. Board staff also meet with the party being audited to discuss the logistics of the audit before commencing the work.

All the activities carried out during the period subject to audit are identified. This includes activities such as the sites harvested or replanted and road sections built or deactivated during the audit period. The items that comprise each forest activity are referred to as a "population." For example, all sites harvested form the "timber harvesting population." All road sections constructed form the "road construction population." The populations are then sub-divided based on factors such as the characteristics of the sites and the potential severity of the consequences of non-compliance on the sites.

The most efficient means of obtaining information to conclude whether there is compliance with the Code is chosen for each population. Because of limited resources, sampling is usually relied upon to obtain audit evidence, rather than inspecting all activities.

Individual sites and forest practices within each population have different characteristics, such as the type of terrain or type of yarding. Each population is divided into distinct sub-populations on the basis of common characteristics (e.g., steep ground vs. flat ground). A separate sample is selected for each population (e.g., the cutblocks selected for auditing timber harvesting). Within each population, more audit effort (i.e., more audit sampling) is allocated to the sub-population where the risk of non-compliance is greater.

Audit work in the field includes assessments from helicopters and intensive ground procedures such as the measurement of specific features like road width. The audit teams generally spend two to three weeks in the field.

Evaluating the Results

The Board recognizes that compliance with the many requirements of the Code is more a matter of degree than absolute adherence. Determining compliance requires the exercise of professional judgment within the direction provided by the Board.

Auditors collect, analyze, interpret and document information to support the audit results. The audit team, comprised of professionals and technical experts, first determines whether forest practices are in compliance with Code requirements. For those practices considered to not be in compliance, the audit team then evaluates the degree to which the practices are judged not in compliance. The significance of the non-compliance is determined based on a number of criteria including the magnitude of the event, the frequency of its occurrence, and the severity of the consequences.

As part of the assessment process, auditors categorize their findings into the following levels of compliance:

Compliance – where the auditor finds that practices meet Code requirements.

Not significant non-compliance – where the auditor, upon reaching a non-compliance conclusion, determines that a non-compliance event, or the accumulation and consequences of a number of non-compliance events, is not significant and is not considered worthy of reporting.

Significant non-compliance – where the auditor determines that the event or condition, or the accumulation and consequences of a number of non-compliance events or conditions, is significant and is considered worthy of reporting.

Significant breach – where the auditor finds that significant harm has occurred or is beginning to occur to persons or the environment as a result of the non-compliance. A significant breach can also result from the cumulative effect of a number of non-compliance events or conditions.

Identification of a possible significant breach requires the auditor to conduct tests to confirm whether or not there has been a breach. If it is determined that a significant breach has occurred, the auditor is required by the *Forest Practices Board Regulation* to immediately advise the Board, the party being audited, and the Ministers of Forests, Energy & Mines, and Environment, Lands & Parks.

Reporting

Based on the above evaluation, the auditor then prepares the "Report from the Auditor" for submission to the Board. The party being audited is given a draft of the report before it is submitted to the Board so that the party is fully aware of the findings. The party is also kept fully informed of the audit findings throughout the process, and is given opportunities to provide additional relevant information and to ensure the auditor has complete and correct information.

Once the auditor submits the report, the Board reviews it and determines whether any party or person is potentially adversely affected by the audit findings. If so, the party or person must be given an opportunity to make representations before the Board decides the matter and issues a final report to the public and government. The representations allow potentially adversely affected parties to present their views to the Board.

At the discretion of the Board, representations may be written or oral. The Board will generally offer written representations to potentially adversely affected parties, unless the circumstances strongly support the need for an oral hearing.

The Board then reviews both the report from the auditor and the representations before preparing its final report, which includes the Board's conclusions and may also include recommendations, if appropriate.

If the Board's conclusions or recommendations result in newly adversely affected parties or persons, additional representations would be required.

Once the representations have been completed, the report is finalized and released: first to the auditee and then to the public and government.